

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Canceled)
2. (New) A interference rejection filter for removing undesirable frequency components in a broadband signal disposed in a given frequency range, the filter comprising:
first, second, and third filter stages connected in tandem, each filter stage having a multiplier with first and second inputs and an output, an oscillator coupled to the first input, a baseband DC canceler stage coupling the output of each filter stage to the second input of the next filter stage except for the output of the third filter stage;
means for coupling the broadband signal to the input of the first stage;
a frequency conversion stage; and
means for coupling the output of the third filter stage to the frequency conversion stage.
3. (New) The filter of claim 2, in which the frequency conversion stage returns the broadband signal without the undesirable frequency components to the given frequency range.

Appln No. 10/826,491
Amdt date August 5, 2004

4. (New) The filter of claim 2, in which the filter stages each have a bandwidth that corresponds to the given frequency range.

5. (New) The filter of claim 2, in which the multipliers are complex multipliers.

6. (New) The filter of claim 2, in which the broadband signal is an HDTV signal.

7. (New) The filter of claim 2, in which the oscillator is a direct digital frequency synthesizer (DDFS)

8. (New) The filter of claim 7, in which the oscillator of the first filter stage has a frequency of 1.75 MHz.

9. (New) The filter of claim 8, in which the oscillator of the first filter stage has a frequency of 3.58 MHz.

10. (New) The filter of claim 9, in which the oscillator of the first filter stage has a frequency of .92 MHz.